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Contributed Articles.

On Important Apian Subjects.

Operating and Operation of Bee-Escapes.

BY C. W. DAYTON.

The past season [1894] I used four different kinds of escapes in removing 6,000 pounds of comb and extracted honey. Also several colonies were kept busy going through escapes from May to October, and it has become my opinion that the escapes so far brought to notice are no more than stepping-stones to the finally perfected implement.

That escapes are an advantage is not theory with me, for throughout the season of 1894 I kept an apiary of over 100 colonies within 54 feet of a much traveled highway to the city of Los Angeles. To open a hive and brush bees from the combs of one colony would send angry bees after teams and people to an extent as to block the passage. Escapes, on the other hand, prevented a single molestation, and where the presence of bees were looked upon as a terror, a friendly disposition was gained for them.

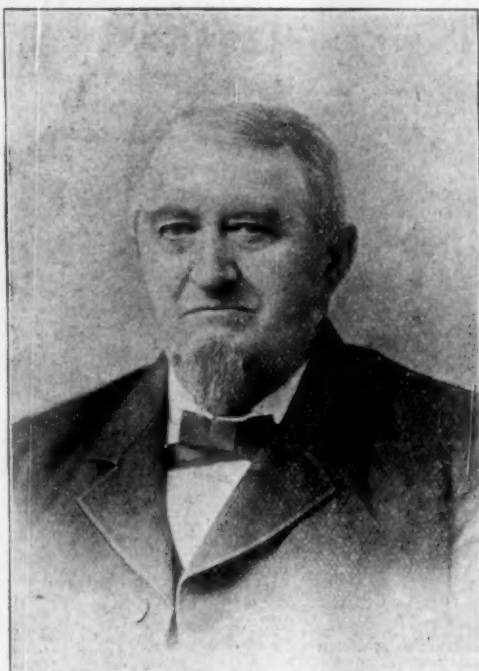
In experimenting with escapes the bees of some colonies go out sooner than others. And the stampeding disposition was discovered, and can be demonstrated as a fact in three hours' time.

In using the Porter escape I began to study into the reason for having the channel of double bee-space depth. Then after a bee gets down into the channel and is about to proceed toward the springs, it must ascend an elevation in the floor. Under the elevated portion is an opening as if prepared for the deception of bees seeking a route to get back into the super. At the side of the elevated portion of the floor are openings as if to admit the passage of air. This elevated portion is a hindrance to stampeding bees. Then the round entrance to the channel has a wide, downward projection that would be sure to interfere with the passage of bees crowding through the channel.

As a rule, the first bees to try the springs seldom go through until they return to inspect every other part of the escape and escape-board. They don't want to go out of the super, but the depth of the rear part of the channel and flanged aperture prevents their going back into the super, and they are consequently forced to travel onward through the springs. The number of bees trapped thus are a very small number compared to the whole super full. They are of a meddlesome disposition, and do not know that they are separated from the queen. To construct a trap for these is impractical. After awhile a few of the clustered bees come down upon the escape-board. They do not become meddlesome or vicious, but search diligently for an exit. Whether it is these bees or the first mentioned which nibble at the joints of the escape-board and super, I am uncertain. I shall make an effort to find out as soon as the next honey season opens. As soon as one of these earnest bees discovers the way to the brood-nest it fails. Other earnest bees are attracted, and form in lines of rapidly increasing number.

Often have I held the Porter escape in my hands and wished for an explanation of every turn which its construction involved. It was the failure of the Porters to do this which caused my experimenting and philosophizing, and I produced the Stampede, not to sell and use, but to illustrate the principle

of a wider exit and going-toward-the-light. This going-toward-the-light is a very valuable idea when properly applied. It is by the use of light that I hope to stop the gnawing of the bees at the joints of the hives. And it is because of this gnawing which calls into necessity more than one escape to the board. For example, if the escape is adjusted in one edge of the escape-board—say, in the front edge—there may be so many bees clustered below the combs that light through the escape cannot shine to all parts of it. This would cause



Hon. Christopher Grimm.—See page 380.

those bees distant from that light to attack crevices nearest to them.

I believe the perfected escape will admit light and contain a trap, which trap may be a spring, but there will be no enclosed channel. When bees proceed in a horizontal direction, turn an angle, and then continue their journey to reach the brood-chamber, energy is wasted to an equal extent that draft is wasted by an elbow in a pipe to the stove.

Florence, Calif.



How to Prevent Swarming.

BY JOHN WELCH, JR.

To the apiarist whose chief object is the production of honey, the prevention of increase by natural swarming becomes a serious problem, which is not satisfactorily solved by

many. The numerous members of the bee-keeping fraternity practice various plans to accomplish their ends in this respect, such as removing or caging the queen, cutting out queen-cells, using entrance-guards or queen-traps, extracting, or giving surplus room above.

Where I run for comb honey alone, I have attained very fair success along this line, by keeping myself well posted concerning the condition of the colonies, and whenever I find one whose brood-chamber is getting nearly full (and this the experienced bee-keeper is enabled to tell at a glance on opening the hive, by observing that the bees have begun to whiten and bulge the combs at the top-bars), I put on a super at once, and put in it two or three partly-filled sections to entice the bees to go to work above, which it will usually do at once if there is a sufficient flow of nectar. If I observe that the bees are still hampered for room, then put on another, putting it beneath the first, which should now be partly filled. Give the bees just room enough, and then entice them to go to work above, and you have accomplished your object, and thereby increased your profits and abated the swarming-fever.

In addition to the above, if it is at a time of the year when the young bees reared would mature at a time to assist in gathering some particular honey-flow, I remove the outside frames, which are usually filled with honey only, and slip in the middle of the colony a couple of frames filled with full sheets of foundation; this will give the bees and queen more room and work for awhile.

But it is my opinion, to get at the matter aright, so as to obtain the best results, it becomes necessary for us to go further back, and see that we have got a strain of bees whose energies are spent on honey-gathering, more than on increase alone. There is without doubt a vast difference in various strains of bees in this respect; while some with a vim are gathering in from field and wood, the various sweets which they can find, others with equal energy are bent on increasing their numbers more than their stores, and consequently when winter comes, they find that they have swarmed the harvest-time away, so to speak, and are without stores for winter.

We should breed only from those queens whose colonies approach nearest our ideal of perfection, considering in their proper order the qualities of hardiness, honey-gathering, gentleness and beauty.

The qualities of different strains of bees are as diverse as those of different people, and the intelligent and wide-awake bee-keeper keeps an eye on this point in selecting his breeders.

Frost, Ohio.



Hints for Extracting-Time.

BY A. C. SANFORD.

The season for extracting honey in this locality usually commences the first part of July, and sometimes lasts until late in August, but seldom. About the first of July the combs should be all extracted clean, because after the first of July the bees will gather white honey, but previous to that time they will work on all sorts of flowers. Dogwood, sumac and clover are the principal sources; dandelion sometimes furnishes considerable nectar. The basswood bloom is the main reliance in this locality, yielding more than all others, and of an excellent quality, the extracted honey being as clear as syrup made from granulated sugar, and, when granulated, is white as milk.

The way I proceed: The hive I prefer is one with about 10 Langstroth frames, or its equivalent, and will admit of being piled one upon another at will. Commence in the spring and add stories to the hives as the bees are able to occupy. Let the queen roam at will until about the first of July, or when you have bees enough reared to harvest the crop, then confine her to the lower apartment and place an excluder over to keep her in the brood apartment. Unless this is done, when you put freshly-extracted combs on, she will immediately fill them with eggs (which we do not want at that season); also the bees will carry the honey up, and at the end of the season the lower story will not contain enough honey to winter the bees.

To get the honey away from the bees the tools necessary are, a good smoker, a whisk broom, bee-veil, pocket-knife, and I use a tool made by riveting a sickle section to a flat piece of iron about $\frac{3}{4}$ inch wide by 12 inches long. Grind the back end of the section, rivet it to the iron for a handle, sharpen the end of the iron somewhat to pry the frames loose with. This is a very handy tool to use about the apiary. I use not very rotten maple wood for fuel in the smoker—it

needs to be just a little damp, or somewhat so, to produce a good volume of smoke.

The morning, or early part of the day, is the best time to take away extracted honey, as there is apt to be less thin honey in at that time. Blow a few puffs of smoke in the entrance, two or three raps on the hive, a couple more puffs of smoke at the entrance, then carefully pry off the top, blowing in smoke at the same time. Smoke the bees some between the frames, push to one side drawn combs, and if the bees are not subdued, they will let you know it. Always hold the combs perpendicularly, shake the bees off in front of the hive—a succession of short jerks will do the work usually, although some Italians stick pretty tight. Brush off the remaining bees with a whisk brush. Have a wheelbarrow ready at your rear, with comb boxes and empty combs to replace the ones taken out.

The first time extracting I put on a queen-excluder above the first story. If you find combs with unsealed larva, put them below, or do not extract them until next time. Two persons can work to advantage—one to operate with the bees, and one in the honey-room.

It is better to extract each variety of honey by itself, if possible, but it is not always possible, for the bees will persist in working on sumac when we would like clover honey. I prefer to do the extracting in its season, as soon as it is fit. One must be guided by the thickness of the honey—it should be left with the bees until ripe enough to keep. I believe all bee-keepers should be very particular about this, in order to be able to have a reliable article. If honey is extracted while raw, or very thin, it will soon take a rank, strong taste, and really is not worth over half price.

I notice that some apiarists recommend adding new stories to the hives until the end of the season, and then extract, but there are some objections to this method. The honey certainly will be fully ripe, and have a good body, but my experience is that such honey does not extract as readily (sometimes with difficulty). Then, I want to keep each variety of honey separate, as much as I can. On our own farms we certainly would not want to thresh our wheat, oats, barley, rye and clover and timothy seed in a mass. Then, it takes so many extra hives and combs to put two, three, or four on each hive. Of course, these have all to be cared for when not in use—the moth and the mouse are ever ready to destroy them.

In the honey-room a good extractor is necessary, a honey-knife, draining-can, and a straining barrel or tank. I use a large barrel with cheese-cloth over the top, and a large gate in the bottom to draw honey off. All the gates used should be of large size, as the small ones are a nuisance. Cut the cappings off smoothly, put in the extractor, turn moderately; if the combs are very heavy, only part should be extracted before reversing. It pays to be as careful as possible with the combs, as it takes the bees some time to repair damages.

I would say right here that it always pays to be clean about everything. Have some water on hand and a cloth. If I get a little honey on my hands, or where it should not be, I clean it up. I can work a whole day and get stuck up but very little. I have had hands to work for me that did lots of work, but when night came the floor and everything was all stuck up. You all can readily see that honey isn't the stuff to smear your boots with, or to anoint your head with, but nice, clean honey is all right in the mouth, especially with bread and warm biscuits.

Ono, Wis.



What Dr. Miller Thinks.

MEMORIAL DAY.—That first page of the American Bee Journal for May 30 keeps fresh in memory the events of '30 and more years ago; but the two songs on the same page leave one a little doubt whether the "Old Reliable" is federal or confederate. Probably, however, the thought now is of a united nation with no North or South, or rather an undivided North and South.

BEEES AND STRAWBERRIES.—I think that so far as the testimony goes at present, the verdict must be given that Bro. Secor has established his point that bees seldom work on strawberry blossoms. If, however, there is testimony to be offered on the other side, to the effect that some one has actually seen bees busily at work on strawberry blossoms, it ought to be promptly brought forth. I think Bro. Secor would rather enjoy being beaten in this case, and I'm sure I'd enjoy his defeat.

LARGE VS. SMALL HIVES.—G. W. McGuire [page 343] gives some strong testimony in favor of large hives, and cer-

tainly it looks that they are the right thing for him. But then some one will arise next and show that small hives are away ahead. I very much doubt whether any amount of controversy, possibly whether any amount of experimenting, will ever definitely settle the question so that one can make the broad statement that one or the other is best in all cases. But much that has been useful has been brought out in the discussion, and for one I should be sorry to see the discussion closed. I think one thing is shown to be true, and that is that in many cases more room has been needed than supposed. And it looks also a little more than it did, that what is true in one case may not be true in another.

DOOLITTLE'S OLD MAN.—"I arise" to a point of order. I move, that that man Bevins be put out. On page 344 he pretends to commiserate Doolittle's old man, but after studying the matter over, and taking a long look at the picture on page 356, I cannot resist the impression that Mr. Bevins is making fun of him. He says he is "handsome-visaged, well-proportioned." I'll not deny the "handsome-visaged," but as to the "proportioned," he's quite too short for his thickness, or else too thick for his shortness. He says, too, that he has "a persuasive, expectant look." "Persuasive" certainly, very persuasive—his very hands are eloquent with persuasiveness, but the droop in his mouth shows that expectancy is dying out, and despair setting in.

INSTRUCTION FOR BEGINNERS.—Beginners certainly cannot complain that nothing in the American Bee Journal is intended for them. If they did, the lack is now being supplied by Dr. Brown in the "Southern Department;" and Northern beginners will find what he says well suited to their needs, and well said.

COLOR OF BEE-KEEPERS' CLOTHING.—That idea Dr. Brown gives, that red is especially obnoxious to bees, is new to me. I know that white is ever so much better than black for bee-keepers' clothing, but I never had experience with colors. Red takes black in a photograph, doesn't it? Has that anything to do with the case? I suppose white is the best, and everything woolly or hairy should be avoided.

GIANT BEE OF INDIA.—I wouldn't like to discourage anything looking to improvement, but so long as all the testimony regarding *Apis dorsata* is of such a discouraging character, it would be well to limit investigations to inquiries that would cost very little. If *Apis dorsata* can be domesticated at all, it could be done more easily nearer its own home. If the government is willing to do anything for bee-keepers, let it be something that is more sure to be of benefit, such as that suggested by the editor on page 349.

HOW TO TELL ROBBERS.—It may be a little dangerous to get in between Messrs. Abbott and Heddon, on page 350, but a suggestion might do no harm. The beginner who cannot tell a blue heron from a smoked herring might make a sure thing of telling whether a bee brings honey out of a hive by the simple process of catching the bee and tearing it apart. If he is of a very humane turn he might catch it, squeeze gently the abdomen to see whether honey will be ejected by the mouth. I don't vouch for the last plan only by hearsay, for I always kill the bee before examining.

Marengo, Ill.



Spacing-Tacks on Frames—Other Things.

J. M. MOORE.

I notice on page 317 Gleaner's remarks on my former communication concerning spacing-tacks, and also his request for further explanation concerning the absence of burr and brace combs in the hives in which I have used the above-mentioned device. As I had no motive in writing on this subject other than to make known a simple device that had contributed to make the work among the bees more pleasant to me, and if I judge by their actions, less obnoxious to the bees, I cannot do better than to write a description of my hives and my management of the same, and let some other contributors with more experience, if they think it worth their while, tell wherein lies the cause of burr and brace combs in the one kind of hive, and their almost entire absence in the other.

I had in operation in 1894 three dovetail hives, two of which contained eight V-edge Hoffman frames, and the third had 10 frames of the same make. I had a follower in each, but they were not keyed up, as no key came with my hives, and I had used them one year before I learned that keying

the brood-nest was recommended. Those three hives were full of brace-combs half way down the combs, and each had more or less burr-combs—one was so bad I had to pry the section-holders loose from the brood-frames when taking off the surplus.

I had five colonies in hives containing nine frames 10½x-13½ inches, inside measure, with top-bar ¼x½ inch thick, end and bottom bars ½ wide, spaced ⅝ inch between top-bars, with spacing-tacks mentioned on page 286. While there were a few brace-combs between the top-bars there were none lower down between the combs, and in most of the five hives they are entirely absent; but it is not in this alone that I claim the greatest advantage for the spacing-tacks, but in the rapidity with which I can handle those frames, and the quietness of the bees while doing so. Perhaps I have not acquired the right knack of handling the Hoffman frames, but I am unable, with the greatest care, to pry them apart without some of them coming apart with a jerk, to be answered by several bees flying viciously in my face and at my hands, and frequently using their stings on the latter; while I can take hold of the frames spaced with tacks and lift them out so quietly that the bees scarcely ever become excited.

I note what Gleaner says about frames moving lengthwise so the heads of the tacks would not touch exactly in the center, thus making uneven spacing. Well, I have just made careful measurements in my empty hives thus spaced, moving the frames back and forth endwise as much as the hive would permit, but could detect no variation in the spacing.

I also note what he says about a nail being better than the tacks. Well, some time after I visited Mr. Smith's apiary I wrote him, to learn if I could procure the tacks of him, as I could not find any in the stores with heads large enough to give ⅝ spacing, and he answered that he was then using a small wire-nail, owing to the difficulty of getting tacks of the proper size, which he said answered as well as the tacks; but as I feared that the nail might get bent, or driven in too far, I procured a hollow belt-punch, and cut a washer out of paste-board to increase the size of the heads.

I also note with pleasure what Gleaner says about ⅝ inch being better between top-bars. As I intend to experiment in that direction the coming season, would Gleaner kindly give me his opinion as to the feasibility of ⅝ inch spaces between my ⅝ inch width top-bars. The assurance from such an authority, that it would work, at this season, would be worth many times the price of the Bee Journal.

This is my third season in bee-keeping. In the spring of 1894 I had two colonies, and lost one the previous winter. I increased to eight, and took 80 pounds of comb honey. My bees are stronger to-day than they were last year in the middle of June, all having come through the past severe winter, but one colony was queenless, which I united with another that had become somewhat weakened by dysentery. I winter my bees on the summer stands, and can notice no difference in the strength of the colonies on my deep or shallow frames. The colonies in the single-walled dovetail hives, with winter case were certainly drier than those on the deep frames in hives with lower story packed in one inch of chaff, with single bottom-board and single upper story, and 3-inch sawdust cushion on top. The one-inch space between the dovetail hive and winter case was packed with sawdust, and a two-inch sawdust cushion on top. The thermometer ranged from 20° to 28° below zero for about three weeks.

Au Sable, Mich., May 20.



Reasons for Preferring the 8-Frame Hive.

BY C. DAVENPORT.

I prefer the 8-frame size of hive, but I am a specialist—that is, I make a living (such as it is) by producing honey; and from quite large and extensive experience I know I can make more money with a large number of frames in 8-frame hives than I can with the same number in 10 or 12 frame hives. But in order to do so it is necessary to feed in some seasons in order to keep brood-rearing up. I employ a man for each yard the entire season. These are cheap men; that is, one of them who has been with me for a number of seasons, is a man who has one wooden leg; another is a man who is not able to do a hard day's work. But they can feed bees all right.

I believe the majority of bee-keepers, though, keep bees as a side-issue only, and many of these do not wish, or have not time, to do much feeding in the spring and early summer, if necessary. For this class, as a general thing, I think the 10-frame hive the best; for the honey those two extra combs will contain, will, in a poor season, enable brood-rearing to be

kept up much better than it would be with only 8. If no feeding were done, and if a flow did come, the colony on 10 frames would have a much larger force of workers to secure it; but when I have gone beyond 10 frames, in general I have got just that much less surplus—that is, with a 12-frame hive I do not get as much surplus within 14 or 16 pounds; and, besides, such hives cost more, and it is much harder work to handle them.

I do not think the locality makes much difference to the specialist about the right size of hive. Of course, it might make a difference as to the time, and amount to be fed. I believe I can make more in any locality with frames in the 8-frame hive than I can with the same number of frames in larger ones; for my experience has been that, as a general thing, 8 frames are enough for the best queens we can get at the present time. In saying "the best queens," I do not mean those that are the most prolific. I have had queens that would keep 10, and in a few cases even 12, frames full of brood; but these queens needed to be prolific, for their bees were so short-lived that these colonies could not store as much surplus as others whose queens did not keep 8 frames full.

Again, I have had very prolific queens whose bees lived long enough; but they were worthless so far as surplus honey was concerned, for their entire time and attention seemed to be devoted to rearing bees, and swarming.

Sometimes we see reports of queens that will keep 12, or even 14, frames full of brood, and their bees store a large surplus. I have had two or three such queens; but they are very rare, and hard to get; and if we could get them, would they be any better? Suppose we had queens that would lay as much as two of the very best ones we now have; could we get any more surplus for the same number of workers, or per frame, than we now do? I do not believe we could, from my experience. I believe that, after a colony gets to a certain strength—a strength with the right kind of queen—the 8-frame hive gives ample room to develop, and they will store as much or more for the same number of workers as one much larger; and I had much rather produce 200 pounds of honey in two 8-frame hives than I would in one 16-frame hive.

Some of the advocates of large hives tell us that bees in such hives will rear a good many more bees during the latter part of the season, and thus have more bees for winter; and that, such being the case, they will winter better and build up faster in the spring. I will admit that colonies in large hives of 12 or 14 frames will rear more bees at a time when there is nothing for them to do. This is why colonies in big hives do not store as much surplus. It takes a good deal of honey to rear and keep these extra bees over winter—enough so that, in large apiaries, it would amount to \$100 or more; and with me they generally die off in the spring before they have done much if any good. But I winter in cellars altogether. In out-door wintering it may be quite different, and the same may be true of deep frames. I have better success in wintering with bees on the standard frames than I do on those that are deeper.

The past winter was, for certain reasons, very hard on bees in this locality, whether they were in cellars or out-doors; and at present some of the strongest colonies that I have are in 8-frame dovetailed hives; and I have colonies in hives of many shapes, styles, and sizes—many more than I shall next year, if the present season proves a good one.—Gleanings.

Southern Minnesota.



California Prospects—Bee-Paralysis, Etc.

BY H. F. JOHANNING.

It seems to me the bee-keepers of Southern California must have had all the whim and enthusiasm taken out of them the last two or three years, or else that "stiff upper lip," which is generally predominant in California, is beginning to quiver, or possibly some of us are being somewhat cured of the old California style, which is—If you can't report grand achievements or glorious prospects for the future, keep quiet, don't say a word. Some of us, through sad experience, have found that it is better not to be too previous in heralding the glad tidings of future anticipations and prospects, although everything be favorable so far as we can see, for even in California, where any one can forecast the weather, there might be a change (as is the case this year) in the regular order of the atmosphere.

The weather had been very favorable until about April 20, this season; the early rains and the invigorating rays of our old friend Sol, started everything growing at least a month earlier than usual. I have lived in California nearly 12 years, and I have never seen a greater profusion and variety of

flowers from about the middle of January up to date (May 2) than this year. The ground has been literally covered ever since—when one kind begins to fade and die another takes its place. It has been as the girl said, "Beautiful, grand, sublime." The rains and sunshine were so evenly distributed that had we ordered it so, it could not have been better, until the last two weeks it has been so foggy and rainy (scarcely giving the bees a chance to work or take a flight), and there is no telling when it is going to let up, for it is letting (yes, almost pouring) down at present. If it continues this way much longer, we won't be "in it" at all for honey. We are losing nearly all of the wild alfalfa honey, and the white sage is blossoming now, too (about a month earlier than usual); the black (or button) sage is past, and yielded a good flow where it abounds (very little in this locality), but the worst of all is that the bees are suffering severely (the stronger colonies) from what we formerly called the "trembles," because they come out of the hive (when the weather permits), stand around awhile, shake and tremble, then whirl around a few times, turn upside down, and—well, they don't tremble any longer. But we now call it "bee-paralysis," because all the bee-papers seem to adopt that name for the disease. Although we bee-keepers adopt the name, I for one do not adopt the causes and cures given by the bee-papers (or by their contributors).

I wish to say right here that I am not writing for fame, neither to dispute what any one has written on this subject; everybody has (or ought to have) an opinion of his or her own, and no one need take what I have to say on the subject for more than it was intended—an idea, a suggestion. I am no authority, only a novice in bee-keeping. I think there are several probable causes of this bee-paralysis, and those causes combined institute the trouble. Improper ventilation, unfavorable weather, scarcity of honey, too much pollen, etc.; the latter is the principal or chief cause, I think. When the hive gets chock-full of bees, and no more ventilation is given, the air will be more or less contaminated, and the bees will begin to feel badly. The weather being disagreeable, the bees can't get out, and a scarcity of unsealed honey may induce them to eat (or feed to the young bees) more pollen than is good for their welfare; and the next thing will be a griping—no, not that, but constipation. Now, may be Drs. Miller and Brown can help us out of the dilemma, and give us a prescription, and about the amount for a dose per colony, and I think the trouble will soon end, any way in this locality, for one doctor has tried such a remedy with good results.

I have observed such sick bees for two seasons previous, have never lost but one colony with the disease, and am satisfied that pollen is the chief cause. I have never (to my knowledge) found a colony that had plenty of ventilation and uncapped honey, and a comparatively small amount of pollen, sick with that disease; neither have I found any of my colonies sick, that had swarmed early, and I always find that the sick colonies consume nearly all the pollen brought in; yet I may be mistaken, and do not wish to dispute what others have to say on the subject. It does not, however, always take a great and wise man to stumble over a straw.

I use the 8-frame Langstroth hive, and think its capacity about right for this locality, and to my idea, but for extracting I prefer a frame about three inches shorter, about the same depth, and then about 10 frames would make it good.

I have 70 colonies in pretty good condition, and about 10 weak ones. I don't care for increase, and would give a large button if I could entirely prevent it, and still keep them in working trim, but I can't do it; they'll either swarm or else loaf around the hive more or less.

I find that by spacing close, I prevent (or at least I think I do) braces between the combs.

I fully agree with Mr. Wallenmeyer, of Evansville, Ind., on the question of full sheets of foundation, and it isn't because I am an old Hoosier, either (when only a boy I was in an Indiana drug-store), but because I get nice, straight, full worker-combs, and not one-third drone. I had to pay for my experience, too.

Etiwanda, Calif.

[Why not give the remedy for bee-paralysis a trial as suggested by Messrs. Alderman & Roberts, on page 364? It may be the very thing. Try it, and then report results.—Ed.]

That New Song—"Queenie Jeanette"—which is being sung everywhere, we can send you for 40 cents, postpaid, or club it with the American Bee Journal for one year—both for only \$1.10. Or, send us one new subscriber for a year (with \$1.00), and we will mail you a copy of the song free.

Questions AND Answers.

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

An Important Notice.

If any of the friends send questions and don't find answers to the same, the most probable reason is that I have not been told where answers were desired. I like to be accommodating, but when you send a question and don't say whether you want the answer in the American Bee Journal, Stockman or where, how can I answer? So when you don't get any answer, if you haven't given me the right information in the first place, just send a card and tell me where you want the answer. No use to send any stamp.

To those who occasionally send a stamp and say they don't want any answer in print but by letter, I must regretfully say that I am so hard driven for time that the only course left for me is to leave such questions unanswered. Occasionally some one thinks that when a stamp is enclosed, that 2 cents entitles him to a dollar answer. A little reflection will show the unreasonableness of this. I always dread opening a letter that has a stamp in it.

Consult your own convenience as to whether you send your questions to the editor or directly to me, only when you have nothing else to write to the editor about, it may make a little quicker work to send direct to me. C. C. MILLER.

Dysentery Killed Them.

What killed my bees? About the middle of November, 1895, I put five colonies into the cellar, all seemingly in good condition with plenty of stores. About the middle of February I noticed they were spotting their hives badly. They seemed to be dwindling away fast after that; by March 15 they were all dead, with plenty of honey left. On opening the hives I found the bottom covered with dead bees and mold; also the combs and sides were moldy. There was nothing over the frames but the cover. Could I have done anything to have saved them? G. H. P.

Lake Villa, Ill.

ANSWER.—The trouble was dysentery. Very likely you might have done something for them by seeing to the temperature and ventilation of the cellar. A thorough airing out of the cellar is a good thing at any time, for you can't expect bees to live in good health if the air is foul. If the cellar was too cold, raising the temperature to 40 or 50°, and keeping it there would help. Possibly the hives themselves were too close, for no matter how pure the air may be in the cellar, if the hives are so close that the same air is too much confined in them, the pure air of the cellar does little good.

Questions About Patents and a Reward.

In the last number of the American Apiculturist [page 35] I read: "The sum of \$50 will be paid to any one who will make an improvement on the queen-trap as now constructed."

Well, this day [May 22] I have made a great improvement on the trap. Please let me know whether I can get the improvement patented; or, in other words, can I get a patent on an improvement of another patent? Then let me know how I am to go about it to get the above reward. J. C. K.

ANSWER.—You can patent an invention of your own that is an improvement on some other invention which is patented, and the man that had the original patent must get permission from you to use your patent. Equally, however, you must get permission from him if you use his patent. In other words, your patented improvement gives you no right to use the invention you have improved upon; so that there must be some sort of an arrangement between you, if your invention is such that it cannot be used independently.

With regard to getting the \$50 reward—that's a private matter between you and the one offering the reward; or, in other words, simply a matter of purchase and sale—you deliver the goods, and he pays the money. But in this case there may be a question whether it was the intention to pay a

reward for an improvement that should not go into the full possession of the one paying for the improvement, and I should hardly think you could patent the improvement and have full control of it, and still get the \$50. For in that case, what would you give in exchange for the \$50?

A Colorado Honey-Plant.

I mail you a sample of plant in bloom. It is the earliest bloom we have in wild flowers, and the bees work on it more than any other flowers we have. It grows in stools like alfalfa, from 25 to 400 or more stalks and flowers. It grows on white, thin land, and has a large white taproot. It needs no irrigation. The flowers last about 25 days. It comes in early, and is just the thing we need to start the bees in the spring. It is quite abundant along the highways and in pastures. Please give the name of it in the Bee Journal.

Bees are in fine condition in this locality, but no sale for honey. D. R.

Las Animas, Colo., April 30.

ANSWER.—The box and flowers were smashed in the mail, the latter being dried up, but I don't believe I could have told anything about it even if I had seen it growing, for I suspect it's some plant that belongs to that wonderful flora of yours that has never deigned to grow in this region. From your description it must be of much importance, and perhaps would flourish elsewhere. You ought to be able to find out about it by writing to the botanist at your agricultural college.

Spring Desertion—Secreting Beeswax.

1. On April 19 I moved my bees out of the cellar, and on the 20th three colonies deserted their hives, leaving plenty of honey and small patches of brood; also since, others have gone out of their hives in the same way, at different times up to the present date, May 26. Why do bees leave their hives?

2. On May 24 we found on the underside of the honey-boards on two hives what appeared to be rendered beeswax. I will send you a sample of it? Do bees make pure wax? or what is it? H. B.

Rossie, N. Y.

ANSWERS.—1. I suppose the trouble might be called "spring desertion," although that doesn't tell much about it. If bees run short of stores they desert, and are then called "hunger swarms." Sometimes it seems as if they desert because they have dwindled away in numbers, and haven't bees enough to properly cover the brood, although there is plenty of honey in the hive. Then, again, they desert when it seems there is no good excuse at all. One thing, however, I think you may always count on, and that is, that such desertion never takes place with good, strong colonies. Sometimes they desert, and then if forced to return they reform and live good lives afterward. That suggests the plan of confining the queen to the hive by means of a queen-excluder, for if the queen cannot leave the hive the bees may return and behave themselves.

2. The sample received seems to be beeswax, very nice and white. I have known my bees when fed continuously for a time to deposit pure white wax on the feeder—what for I don't know. It was put on just as propolis is daubed on. Probably yours is a case somewhat similar. If you could get the bees to do that sort of thing regularly, and always produce as nice an article as the sample sent—a lump as big as a large pea—you might make some profit raising wax.

The Laying Queen Flew Away.

My bees came out of the cellar in fine condition, but when I opened one hive to see if they were all right, the queen flew away and did not return. So I united the colony with another, after a few days, as they destroyed their brood, and had no chance to rear a new queen. Is it a common occurrence for a queen to do so? Everything was in good condition in the hive, and there were eggs and larvae in two combs. The rest of my bees are doing well, drones are flying, and queen-cells are quite numerous. M. W.

Nimrod, Minn., May 19.

ANSWER.—It certainly is unusual for a laying queen to fly away when the hive is opened, and unusual also for the bees to destroy their brood, or fail to start queen-cells. There seems something abnormal about the whole case.

What Caused the Bees to Die?

What is the matter with my bees? This morning I went to look at them and found lots of dead and dying bees on the ground. They would come out of the hive and alight on the ground and die. Lots coming back loaded with pollen would alight at the bee-entrance and go no further. It looked hard to see the ground covered with bees in such a short time, and no help for it. My three colonies were in the same condition. I opened some of the hives and found a nasty, dark brown, thick liquid in them—it looked to me as if they got something that poisoned them. I know of nothing that I can do to help them. They have been falling down all day, out of the air, and cannot fly again. If this keeps on for three or four days, I will have none left. I never saw a stronger lot of bees than they were Saturday, and on Sunday morning they were in bad condition. E. F.

Portland, Maine, May 25.

ANSWER.—The only thing I can think of is poison of some kind, and I can't suggest any remedy. It seems a very sad case. Please let us know the final outcome.

Canadian Beedom.

Conducted by "BEE-MASTER."

What Constitutes an Italian Queen, and a Purely-Mated Italian Queen?

These are questions that seem to engage the minds of many bee-keepers, owing, I believe, to the many discussions going on in several of our bee-papers, about this much-abused race of yellow bees. It is rather amusing to read the comments made by several editors of bee-papers. Take, for instance, those made by the editor of *Gleanings*. Scarcely a paper comes to hand but contains some comment, either original or copied from other journals, denouncing this yellow race of bees. If it is possible to have them banished from our land, some certainly are determined to leave no stone unturned to accomplish this end.

If those who are so keen to place barriers in the way of progress could rear and maintain the yellow race as easily as they can the hybrids they call "pure Italians," (because their worker progeny show three yellow bands) the yellow race would at once be accepted as the coming bee. The great difficulty in perpetuating the distinct characteristics makes this a hard matter with the rank and file of bee-keepers. It will continue to be so until yellow drones predominate to the extent that black drones now do. This may take half a century to accomplish. If the editors of some of our papers keep up the crusade as they have done in the past, we may bid farewell to the advancement of bee-culture on this line. We are glad to know, however, that all bee-keepers do not write for or edit bee-journals, but know a good thing when they see it.

As bee-keepers, we have been led to believe that the queen is the most potent factor in transmitting qualities, when we should have been taught to look to the drone. It is an ascertained fact that all breeders of thoroughbred stock who have risen to eminence admit the male to be the chief part of the herd. This is a subject of great interest, and wide scope, but will be confined in the present article to the observations of the writer, as it would take up too much space to go into the matter fully as to the origin of this race, and how color is produced. This may at some future date be done.

Before making an attempt to explain my views on this subject, let me draw your attention to the law of similarity. This is one of the plainest and most certain of the laws of Nature. Children resemble their parents, and they do so because this is hereditary. The law is constant within certain limits. Progeny always and everywhere resemble their parents. If this were not so, there would be no constancy of species. For in all time we find repeated, in the offspring, the instincts and all the general characteristics of the parents, and never those of another species. Such is the law of Nature, and hence the axiom, "Like produces like."

Now if we get what the generality of queen-breeders call a pure Italian queen, is there a similarity, or like producing like, in their progeny? According to the views of some who sell and breed queens, any kind of a queen that produces three-banded bees is recognized as being a pure Italian. That, in my opinion, is no proof whatever, as will be shown, but

the prevalence of this idea shows how little interest is taken in the purity of our bees.

A pure queen is one that will duplicate herself in her drone progeny, whether black, gray or yellow. A pure black queen will always produce pure black drones and every one so. A pure Carniolan will produce the same caste as the mother, and a pure Italian will produce yellow drones—as yellow as the mother. How many, in getting pure Italian queens, find the drones as yellow as the queens, and every one so? I am afraid, if you look closely into this matter, the drones will be found a very mixed or mottled race. If that is the case, then you have not got a pure queen. Why? Because like produces like. Drones have no father, the queen having the power of parthenogenesis complete within herself as far as drone progeny is concerned. The drone progeny never becomes affected by the queen being fertilized, because the drone, when copulation takes place, discharges only one polar body, which is female, and therefore influences only the worker-bees. Any parties who assert to the contrary are ignorant of the facts of the case. Having disposed of this question, we come to a second, viz.:

What constitutes a purely-mated Italian queen? A purely-mated Italian queen will produce uniformly-marked workers, yellow to the tip, completely so on the under side of the abdomen, but the best proof is to produce queens from the worker-eggs of the previous queen, and if they produced perfectly yellow drones, that would be positive proof of their mother's purity, and also that she was purely mated. I know whereof I speak, and if you give one dash of pure black blood to a pure Italian queen, it will take 17 generations to breed it out again. In other words, 17 straight crosses of pure blood, and some of the drones would not be extra yellow at that. Some would show a little bronze on the last segment of the abdomen. At the 16th cross the workers will be perfect, but the drone progeny will show a percentage jet black, or nearly so, up to the 16th generation, showing conclusively that the characteristic of color is more indelible in the drone than the worker. If we want to improve our race of bees, and do so rapidly, we must look a little more to the drone than we have heretofore done, for the transmitting of characteristics.

This brings me to a third question: How can a queen or drone transmit instincts or characteristics that neither ever possessed? Color, disposition, and constitution no doubt are transmitted through both. Farther than this I cannot go without calling in the aid of a third party, which seems to me to play an important part in transmitting qualities, that is, the drones from laying workers. Having now in my possession the offspring of queens mated from that source, such queens, in my opinion, may not be so long lived as those mated by drones the offspring of fertilized queens; but there certainly is no difference in their offspring, to all appearance. They lay eggs just as good and plentiful as any other queen, and work as vigorously. Queens were superseded last season; had they been queens properly mated, that is to say, with drones from fertile queens, supersedure may have taken place the same. They survived long enough so that through their offspring the instincts and all the general characteristics of the parents were transmitted. There is no doubt we have this class of laying workers ever present. They were observed by the writer many years ago in extracting from the upper stories with queen-excluders. I found where drone-combs were used that often drone-brood was present. At first I thought the queen had been there, but close observation revealed the fact that it was the work of laying workers, a queen being in the brood-chamber. Seeing that such is the case, there is nothing surer than that they are ever present, and through their instrumentality habits, instincts, and all the general characteristics of bee-nature are transmitted, which neither queens nor drones—the offspring of queens—ever possessed. It therefore becomes a necessity in the workers to be drone-layers, or how do they know how to build drone-cells, having inherited no such tact through mother, father or any predecessor, unless through their own male descendants? Thus the drones from laying workers are a potent factor in transmitting certain characteristics.

We see the best evidence of this in a young swarm becoming queenless. They have a perfect knowledge of their condition, constructing drone-cells only, and if allowed would fill them with drone eggs. Introduce a queen, fertile or unfertile, and the construction of drone-cells immediately ceases. Does not that look as if they were governed by reason? And, moreover, they as a rule select drone-cells to lay in, and seem to know their business better than an unfertile queen. They don't seem to realize their condition and lay promiscuously. Comparing the labors of a queen-wasp and a queen-bee, I am inclined to look upon a queen-bee as being a degradation.

Toronto, Ont.

JOHN MCARTHUR.

Southern Department.

CONDUCTED BY

DR. J. P. H. BROWN, AUGUSTA, GA.

[Please send all questions relating to bee-keeping in the South direct to Dr. Brown, and he will answer in this department.—ED.]

Two Queens in a Hive—Feeding the Queen.

DR. BROWN:—1. Have bees ever been known to tolerate more than one fertile queen in the same brood-nest at the same time?

2. Can queen-bees feed themselves independent of the worker-bees? I. S.

Long, W. Va.

ANSWERS.—1. Yes, sir; they frequently do under certain conditions. For instance, a queen is getting old, and the bees proceed to rear another to supersede her. This young fertile queen I have often seen on one side of the comb laying, and the old one on the opposite side engaged in the same act. The bees would seem to tolerate this upon the assumption that the old mother would soon be gone, and it is not worth while to hasten her departure.

2. Yes; but judging from their actions they much prefer being fed.

Bees Moving Eggs—One Instance.

At various times I have seen reference made in the American Bee Journal to the question of bees moving eggs. Some writers flatly deny that this has ever occurred, but I know of at least one instance where bees moved eggs from one comb to another, and I would not be surprised to at any time find a queenless colony rearing a queen from an egg stolen from a neighboring hive. This would not happen often, perhaps, for the reason that laying workers would generally interfere.

Early in the spring I had a colony become queenless. As soon as I noticed their condition I gave them a frame of brood from my breeding queen. They reared a queen, but she was lost at mating time, I suppose. By the time I discovered her loss, all brood had hatched. I gave them another comb containing eggs, and on examination a week later, I found several queen-cells on the comb I had given them, and two or three on each of the adjoining combs which were empty of brood, and contained but little honey. Some of these cells were on the outside of the combs. I suspected laying workers, but to make sure of this very matter of the moving of eggs, I cut one of the cells (after it was sealed) from the outside of one of these empty combs, put it in a West cell-protector, and placed it in a nucleus formed for the purpose. In due time a queen, in all respects, hatched from that cell. No laying workers developed in the old colony, as I could find no more eggs in any of the empty combs. This colony now has a fertile queen.

Holly Hill, Fla.

C. S. HARRIS.

A Bunch of Kinks Reviewed.

That "Bunch of Very Short Kinks," on page 278, confirms the oft-repeated theory of the past, and conceded fact of the present, that experiences differ in different localities, and that that which is attended with success in one locality, would often prove a "dismal failure" elsewhere.

ANTS—GREAT SOUTHERN BEE-ENEMIES.

Mr. Scott's ant-preventive may keep them from "nesting under the cover," but the Southern bee-keeper is more interested in preventing them from destroying his bees. It is questionable if any bee-enemy in the South causes as much annoyance as do ants. To open a hive of bees that have fallen a prey to these merciless nocturnal marauders is a spectacle eminently calculated to incite the deepest sympathy for the industrious little victims, and a war of extermination against the invaders. The ants congregate by thousands at night around and over the hive, making their attack *ex abrupto*, biting off the legs and wings of the bees, thus disabling them, and with the advantage of their sting-proof armor and powerful jaws, the total destruction of a colony is but a short job, and the morning light reveals to the apiarist a writhing mass of helpless, living, dismembered bodies heaped upon the bottom-board.

In localities where, by the frequent visits of these pests,

the vigilant apiarist has become familiar with the "cry," he readily recognizes their presence in an apiary by walking quietly through the yard at night. As he knows the satisfied hum of a hiving swarm, the contented hum in the hive at the close of a day's work, the piping of rival queens, the note of an angry bee, the hollow [?] hum of a queenless colony when disturbed by smoke, or the sound of a swarm in the air, so he knows the clearly-audible notes which emanate from a colony invaded by ants. It is like the hopeless cry for help, pathetic in tone of expression, and simultaneously arouses the sympathetic and punitive nature of the apiarist to the utmost. Oil or fire, or both, applied at their nest, I believe, is the only effectual, practical means to be employed in a large apiary, while the oiled string is no safeguard against destruction by ants, in any case.

CAPPING THAT HAS A WATERY APPEARANCE.

From the same "bunch": "A queen whose bees cap the honey so it has a watery appearance should be superseded by one whose bees cap the honey white." If the queen is otherwise desirable, better give her colony an extracting "story," and furnish the one possessing superior comb honey traits with a super of sections. Possibly, by this management the former would prove more profitable than her proposed successor.

FIFTY OR ONE HUNDRED COLONIES—WHICH?

Mr. Scott's claim that 50 colonies well managed will make more money than 100 carelessly handled, may be a fact, but why not increase the revenue 100 per cent. by giving 100 the same care bestowed upon 50—as to care for 50 colonies "well" supposes the attention and watchful care of one person, while if so disposed, he could as "well" manage 150?

EQUALIZING THE STRENGTH OF COLONIES.

Again, we are advised that a good way to equalize the strength of colonies is to "move them around." Now, that wouldn't work here, either. The result of such a practice would be quite the reverse, for the percentage of loss would be greater with the weaker colonies than with the stronger ones, and while all would probably be weaker, they would not be made uniformly weak. "Gleaner" thinks that by the exchange, the weaker colony would gain. Perhaps it would, but the chances against it are numerous, especially if practiced at a time when honey is scarce in the field. Aside from the loss of workers resulting from their own warfare, nothing could be better designed to excite robbing.

New Smyrna, Fla.

H. E. HILL.

Why Italian Bees are Preferable.

DR. BROWN:—I have an apiary of black bees which are very gentle. Do you think I could better myself by getting Italian queens? If so, what kind, leather-colored or golden? I want the gentlest and best regardless of color. Of course, I prefer the goldens, if they are as good. R. E. P.

Grifton, N. C.

ANSWER.—The Italians are preferable to the blacks, not only because they are better workers, but they are more easily handled; besides, better looking. The leather-colored I have found to average the best workers; for "beauty" I prefer the golden, and when bred for business they "score" well as honey-gatherers. Some of the yellow strains have Cyprian blood in them, which makes them vindictive and great swarmers—both objectionable qualities.

Honey as Food and Medicine.—A new and revised edition of this 32-page pamphlet is now issued. It has 5 blank pages on which to write or paste recipes taken from other sources. It is just what its name indicates, and should be liberally distributed among the people everywhere to create a demand for honey. It contains a number of recipes on the use of honey as food and as medicine, besides much other interesting and valuable information. Prices, postpaid, are: Single copy, 5 cts.; 10 copies 35 cts.; 50 for \$1.50; 100 for \$2.50. Better give them a trial. Send all orders to the Bee Journal office.

Only One Cent a Copy for copies of the American Bee Journal before Jan. 1, 1895. We have them running back for about 10 years. But you must let us select them, as we cannot furnish them in regular order, and probably not any particular copies. Just send us as many one-cent stamps as you may want old copies, and we will mail them to you.



 George W. York, - - Editor.

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Editorial Budget.

The First Number of the monthly Southland Queen has been received at this office. It has 26 pages in all, and is published by the Jennie Atchley Co.

The Kansas Bee Journal says this in its June issue: "So far, the only exchanges that are always on time are Gleanings and American Bee Journal. Some are only occasional, and very late ones at that." Would the saying, "Better late than never," apply to some of the "occasional?"

The Apiculturist for March, April and May is all in one number, I notice by two other bee-papers. It has not been received at this office as yet—June 6. Gleanings asks, "Is it a quarterly?" I should say yes, at least for once, and I see it reported that it "may be issued quarterly the remainder of the year." But isn't 75 cents a pretty big price for four numbers of the Apiculturist?

No "Straws" were found in Gleanings for June 1, so for once it was "all wheat." It was the first time since "Stray Straws" have been published, that the usual installment failed to arrive. Their absence must have been caused by an accidental delay or oversight. But may be Dr. Miller's "straw stack" melted down during the hot weather, and so he's out of straw(s) as well as out of sorts. Just for a change he might furnish some "good grain" instead of "catching at straws" and landing a bunch twice a month!

Bee-Keeping Not a Nuisance is the title of an 8-page pamphlet re-issued by the National Bee-Keepers' Union. It is a full history of the lawsuit between Mr. Z. A. Clark and the city of Arkadelphia, Ark., in 1887. Copies may be obtained free by addressing the General Manager, Thomas G. Newman, 147 South Western Ave., Chicago, Ill.

Mr. Newman, in the closing paragraph of the pamphlet, says:

This decision of the Supreme Court is a document that will become of great use as a *precedent*. It will be a guide for the rulings of judges—for the information of juries—and for the regulation of those who may dare to interfere with a respectable pursuit by law or otherwise.

Reduced Freight Rates.—Mr. J. T. Ripley, the gentlemanly chairman of the Western Classification Committee, upon my request, has kindly furnished the following in-

formation relating to the reduction of freight rates applied for on May 8, by Dr. Miller, as chairman of the committee appointed for the purpose by the North American Bee-Keepers' Association, at its last meeting:

CHICAGO, Ill., June 5, 1895.

MR. GEORGE W. YORK, Editor American Bee Journal.

Dear Sir:—Answering your favor of the 4th inst. At a late meeting of this Committee the following changes in classification on honey were agreed upon, viz.:

Honey, in comb, in boxes, with glass fronts, fronts not protected, now rated at two times first-class, was made first-class.

Extracted honey, now provided for in tin cans, boxed, and in kegs at second-class, was made fourth-class.

Extracted honey, in barrels, now provided for at third-class, was also made fourth-class.

Yours truly,

J. T. RIPLEY, Chairman.

N. B.—I am advised that the Western Freight Association have made K. D. bee-hives and honey-box lumber ratable the same as lumber, taking effect June 1, 1895. The other changes referred to above take effect July 1, 1895.

J. T. R.

I think Dr. Miller should be congratulated by bee-keepers upon the success attending his efforts in this matter.

The Epworth Herald is the official organ of the Epworth League—the young people's society of the Methodist Episcopal Church—which now has a membership of over 1,000,000. The Herald, under the magnificent editorship of Dr. Joseph F. Berry (my personal and esteemed friend and neighbor) is now crowding the 100,000 mark. The issue for June 1 was a double (32-page) number, wonderfully rich in illustration and character of contents. Aside from its religious selections, it is a grand number for the general reader. I wish everybody could read it—young and old—whether Methodist or not. The yearly subscription price is \$1.00—a remarkably small sum for such a fine weekly. Send 5 cents in stamps for a copy of the double number, dated June 1. Address, Cranston & Curtis, Publishers, 57 E. Washington St., Chicago, Ill.

Hon. Christopher Grimm.

Christopher Grimm was born on March 18, 1828, at Hohenbrun, Bavaria, Germany. His early days were spent in obtaining a fair education, such as the times and circumstances afforded, and in learning and practicing practical farming. His father was one of those quaint but admirable characters whose whole desire seemed concentrated in bringing up his children inured to hard work and rigidly honest.

Christopher Grimm left the parental roof on April 29, 1846, and struck out for America to seek his fortune. He landed at Quebec, Canada, but soon left for Milwaukee, Wis., and finally located at Terre Haute, Ind. He at first worked upon a farm; but as soon as he had saved up sufficient to give him a start, he began the grocery business, and continued the same until he moved to Jefferson, Wis., in 1865. At Jefferson he again engaged in the mercantile business, and continued in the same for a number of years.

His brother, the late Adam Grimm, was during this time winning for himself fame as one of the foremost and successful bee-keepers of the country; and when one day a swarm of bees passed over Christopher's place, and he captured them (and they in turn captured him), it gave to the bee-keeping world another earnest and successful worker. It is needless to recount how his love for the business and success in the same grew apace, until he gradually became known as one of the most successful bee-keepers of the country. His apiaries at times exceeded a thousand colonies, and his love for the busy little workers never left him.

The last trip of his life was made on the day of his death, April 20, 1895, and was a visit to one of his apiaries. It was

a beautiful spring day, and he seemed as full of life and happiness as his little friends just awakening to Nature's new beauties; but before six o'clock in the afternoon his heart had ceased to beat, and the sad news sent a chill through the city where he lived.

Christopher Grimm was a man of such sterling worth, uncompromising honesty, so kind and helpful to every one, so sought after for advice, so unflinching in the discharge of duty, and so true to friendship, that his many virtues almost made one forget the fact that his fortunes and his character were, so far as such can ever be, the result of his own efforts.

The American Bee Journal has always found in Mr. Grimm a careful and appreciative reader, and we feel our loss, and extend to those more closely linked our hearty sympathy.

The Apiarian Premium List of the Minnesota State Fair for 1895 is on my desk. The Fair will be held at Hamline, Sept. 9 to 14 inclusive. There should be a good display of apiarian products, as the list of premiums is quite generous. Mr. J. P. West, of Hastings, Minn., is the Superintendent of the bee and honey department. Those interested can address E. W. Randall, Secretary, Hamline, Minn., for a copy of the complete premium list of the 36th Annual Fair of Minnesota. The apiarian premiums offered are as follows:

DIVISION H.—HONEY, BEES AND APIARIAN SUPPLIES.

Lot.	1st.	2nd.	3rd.
1. Most attractive display and best quality of white clover honey.....	\$12	\$8	\$4
2. Most attractive display and best quality of basswood or linden honey.....	12	8	4
3. Most attractive display and best quality of extracted white clover honey.....	12	8	4
4. Most attractive display and best quality of extracted basswood or linden honey.....	12	8	4
5. Most attractive display and best quality of fall comb honey.....	12	8	4
6. Most attractive and finest display of comb honey.....	8	4	2
7. Most attractive and finest display of extracted honey.....	8	4	2
8. Most attractive and finest display of comb honey, not less than 20 lbs., and the manner of putting up for market considered.....	8	4	2
9. Nucleus of Italian bees, and queen.....	8	4	
10. Collection of different races of queens.....	8	4	
11. Beeswax, not less than 10 lbs., soft, bright yellow to have the preference.....	3	2	
12. Honey-vinegar, not less than one gallon, to be exhibited in glass.....	2	1	
13. Display of apiarian supplies and implements.....	8	5	
14. Largest and best variety of uses that honey may be applied to; illustrated by individual samples of different things into which it enters: cakes, pastry, meats, etc.....	15	5	

GRAND SWEEPSTAKES.

15. Largest, best and most attractive exhibition in this department, all things considered....	15	8	5
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RULES GOVERNING EXHIBITS.

Exhibitors must be residents of Minnesota.

A breach of these regulations, or of any rule of this society will forfeit all premiums that may be awarded.

All honey must be the product of bees within the State, and the bees owned by the exhibitor.

Exhibitors in Lot 14 must be bee-keepers, and produce their own honey.

No entries received after Sept. 7.

A B C of Bee-Culture.—We have some of these books left, and in order to close them out quickly, we renew the low offers we made on them. This is the fine cyclopedia of bee-keeping by A. I. Root, containing 400 pages and nearly 200 engravings. The regular price is \$1.25, but we will send the American Bee Journal one year and the "A B C" bound in cloth—both for only \$1.80; or the parchment cover (very heavy paper) "A B C" and the American Bee Journal one year—both together only \$1.50.

Among the Bee-Papers

Conducted by "GLENER."

WAX FROM CAPPINGS.

I find from careful tests, that from each pound of capped honey, the cappings, if saved, will make on an average about $\frac{3}{4}$ ounce of beeswax. This is quite an item when beeswax is 30 cents, and extracted honey 4 or 5 cents. I have saved as much as 50 pounds of wax from 30 colonies, run for extracted honey [spring count], just from cappings with scrapings of hives and frames.—Clark A. Montague, in Gleanings.

F. L. THOMPSON'S PUZZLES.

On page 359, F. L. Thompson gives some back talk about the size of hives that will puzzle some of his opponents to reply to, and I must confess to being a little puzzled to know just what he means when quoting my expression "frames an eighth larger" he says he thought it was "a fourth." I was speaking of 6 frames 16x9, and then said, "What will be said to that by those who want 10 or 12 frames an eighth larger in size?" Of course I meant the common size, $17\frac{1}{2} \times 9\frac{1}{2}$. Isn't that an eighth larger than the 16x9 frame? In the one frame are 144 square inches and in the other 160, and doesn't 160 come within 2 of being an eighth more than 144? There's a misunderstanding somewhere, and I am not sure where it is, and it will be a relief to have Mr. Thompson settle whether the joke is on me or him.

SPRING AND SUMMER FEEDING.

Spring and summer feeding of bees is so much easier done by feeding out-of-doors that we feed that way almost exclusively unless we know of a hive or more that is clear out, and then we give a comb of honey or one good feed in the hive at night. We keep our feeder at the east side of our honey-house, where the water runs off the house and keeps it full of fresh, clean water whenever it rains, and this helps to keep water out for the bees, and at the same time keeps the feeder from drying up if we forget to keep water in it. Just now we are feeding only by putting the syrup in feeders in the evening, and on top of the feeder we set some black sections of honey-dew, as we don't care to feed much honey-dew by itself; then we cover over the feeder so as to shed off the rain should it come in the night. The bees work at the feed late in the evening and early in the morning, and have it all taken up before the neighbors' bees, two or three miles away, come around, and then they have the day to go to the woods and orchards.—Mrs. L. C. Axtell, in Gleanings.

CARNIOLAN AND BLACK BEES.

Bro. Abbott wonders (page 302) that any one has trouble distinguishing between blacks and Carniolans. Have to fix that up, Bro. Abbott, with the friends of the latter race, and those who have them for sale. When they say that the only way to tell them apart is by their actions, it isn't any wonder that those who are not familiar with either blacks or Carniolans should not be able to tell them apart at first sight. There is a good deal in being familiar with a thing, however. What may be easy for you may be difficult for one unfamiliar with Carniolans. I remember the time when to me one negro looked about the same as every other negro, for I had never seen half a dozen of them.

B. TAYLOR'S HIVE AND MANAGEMENT.

His hive, as reported in Gleanings, has 10 frames $13\frac{1}{2}$ inches long by $8\frac{3}{4}$ deep. As soon as the hive is well filled with brood, a second hive of the same dimensions is added, more or less filled with honey.

"In this system each colony will have two hives at swarming-time. We will give each colony run for comb honey, cases of sections early, for we do not care whether they swarm early or late. We will keep them storing surplus without swarming at all, as long as plenty of room will do it; but we will use no force measures to prevent swarming; for, after the most searching effort in that direction, we are now thoroughly convinced that it cannot be profitably done. When the swarm does finally come (if it does), we will hive it in a hive contracted to eight frames or less; remove all surplus cases from the old to the new swarm; set it on the old stand, turn the entrance of the parent colony in an opposite direction on the vacant space on the same stand to be requeened, and the two colonies will be united again after the white honey-flow."

After the white honey-flow (basswood), sections are re-

moved, combs take the place of the two dummies, a queen-excluder is given, on which is put a hive filled with foundation, or else the two colonies are united, the swarm being placed on top of the mother colony, the old queen being removed. Other hives are added on top if needed, and at the end of the season all above the excluder are removed and abundance of stores given to the colony.

WEIGHING BEES TO ASCERTAIN THE STORES.

Mr. Abbott (page 350) thinks the ordinary mortal who expects to make money out of bees must learn to take a shorter cut than to weigh his colonies to decide about the amount of stores. But there is such a thing as a practical bee-keeper weighing his bees just *because* it is a shorter cut than hefting and looking. So far as hefting is concerned, the man who has done a great deal of hefting knows that while something can be told by it, it cannot be relied on for any great degree of exactness. Suppose the actual weight of No. 7 by the scales is 40 pounds. If the hefter hefts it after hefting a hive of 32 pounds, he may call it 45, and if he hefts it after hefting one weighing 60 pounds he is likely to underestimate it. The more tired he is the heavier the hives will feel. If Mr. Abbott will heft 100 hives with their contents, then weigh the same, he may be surprised to find he's not so accurate a hefter as he supposed.

"One cannot tell the location of the stores by any method of weighing," says Mr. Abbott. Neither can he tell all about the location by looking at the tops of the frames, and surely when Mr. Abbott talks about "shorter cuts" he doesn't mean we should take out the frames one by one to see where the honey is in each. I don't suppose there's anything so very different about the way bees place their stores in Missouri from what they do in York State. When I weigh a hive which shows by its weight that about 40 pounds of honey is present, I know the important thing to know. I know the honey is in the hive, and I know without looking at each frame separately that it is not all at the bottom of the frames. I know, too, that wherever it may be placed in the hive it is a good deal better than if it was "in the moon," for the bees have a trick of moving it where they want it, and where it will do the most good.

Mr. Abbott has my permission to examine with his *eyes* and heft with his *hands*, and I'll get along generally without either that or weighing, but if there comes a time when it is a question whether there's need of feeding up to prevent starving, and I want to get along with as little time as possible, I'll weigh.

Notes AND Comments.

CONDUCTED BY

Rev. Emerson T. Abbott, St. Joseph, Mo.

Crosses the Best.—"W. Gunther stated that after years of experience he had found that Italian queens were not as long lived as black ones, and that Italian colonies more frequently died in the winter; hence he preferred a cross between them."—Notes by F. L. Thompson, in Review.

I am led to wonder if many bee-keepers have had a similar experience. If so, this would be another reason in addition to those given in my articles on comb honey why the Italians are not the best bees under all circumstances. I have noticed, myself, that more Italian colonies than blacks die in this locality in the winter, but I have been inclined to attribute it to the fact that nearly all, if not all, who have Italians have them in hives with shallow frames, while most of the blacks are yet in old box-hives. I noticed not long ago, while visiting an apiary of Italians, that all those in tall hives were alive, while those in hives with shallow frames were about all dead. But, notwithstanding, I am inclined to the opinion that we have bred too much for color and not enough for hardy, rough-and-ready business. We can afford to be stung a few more times, if we are well paid in honey as an offset, and find strong and healthy colonies in our apiaries in the spring, instead of empty hives.

British Comments.—In the British Bee Journal of April 25, a Mr. Brice, writing under the title of "American Antiphrasis"—whatever that may mean—pours out his wrath and indignation on the writer of these "Notes and Comments," not for any offense committed against his own superb dignity, but in defense of the editors of the British Bee Journal, whom

he imagines I have insulted even to the verge of mortal combat. If it were not for the fact that "ye editors" are "averse to noticing this sort of a thing," I do not know but I might expect the entire British navy to sail up the "Big Muddy" and blow the top off of our fair city, so great seems to be his wrath. However, I trust his digestion has improved by this time, and, if so, I should be glad to have him ponder over such phrases as the following: "Anyone possessing a grain of common-sense;" "dubious methods;" "playing a bit low;" "distinctly savoring of dishonesty." I should say, to use Mr. Brice's language, that any man who found it necessary to use so much billingsgate, must be "hard up for copy." If I thought all the people on the other side felt as pugilistic as Mr. B., I would be inclined to say, "Have a care, John; do not prod the Eagle too much. He's an ugly bird when he gets riled, and hard to manage." But they don't.

I have the impression that the editors of the British Bee Journal are scholarly gentlemen, and abundantly able to take care of themselves, and I am inclined to think they did not thank Mr. Brice for rushing to their defense in this unbecoming, and what we would call, on this side of the water, ungentlemanly, way. I have no disposition to "discredit" anyone in my "notes," and if I misunderstood the drift of the quotations upon which I commented, I am sorry, and stand corrected. I want to say, however, that we call any note made by the editors an "editorial," and I find the reply just as I quoted it, and will leave it to any man of ordinary intelligence to decide whether it does not convey the impression that the writer believed in open-air feeding. Turn to page 222, and read the quotation as I gave it. Somebody teaches open-air feeding here, editorial or no editorial, Mr. B. to the contrary notwithstanding.

As to the other quotation about bees being animals, I may have misunderstood it, but I hardly think I would be open to the charge of not having "common-sense" if I did, since I have seen the question asked in public print, "If bees are not animals, what are they?"

I may as well say here that my "notes" are open to the same kind of treatment that I give to others, but I hope they may be discussed in a gentlemanly way, and I will try to clothe my replies, if any are made, in such language as becomes a gentleman. All I ask is fair treatment, and that people write over their own names. This, in my opinion, is the only merit Mr. B.'s article has. There is one kind of criticism to which I make it a point to pay but little attention, and that is when I do not know the real name of the author. If the Editor will excuse me, I will say that I have but little interest in articles which are fathered by a—nobody. I think if Observer, Somnambulist (I beg the lady's pardon), Gleaner, Jake Smith, Bee-Master, and others would write over their own names, the contributions would be much more valuable. If a thing has value, one should not be ashamed to own it. If it has not, then it is not worth the printing. If it has value of itself, it will be of more value if backed up by a personality with a real name. I wish we might drop all of this *nom de plume* business, and let the world know who we are and where we are at.

I will say further, that the American Bee Journal has only one editor, so far as I know. The writer of "Notes and Comments" is no more an editor of this Journal than Mr. Brice is of the British Bee Journal. In fact, apparently not so much so, as Mr. Brice seems to think it his duty to defend the editorial staff of the British Bee Journal, while I think our editor is abundantly able to defend himself.

Ten Weeks for Ten Cents.—This is a "trial trip" offer to those who are not now subscribers to the American Bee Journal. Undoubtedly there are thousands who would take this journal regularly if they only had a "good taste" of it, so as to know what a help it would be to them in their work with bees. In order that such bee-keepers may be able to get that "taste," the very low offer of "10 weeks for 10 cents" is made.

Now, dear reader, you cannot do a better service than to show this offer to your neighbor bee-keeping friends, and urge them to send on their 10 cents and get the next 10 numbers of the old American Bee Journal. In fact, you could afford to send the 10 cents for them, and then after the 10 weeks expire, get them as new subscribers for a year. They will be easy to secure then, for the 10 numbers will be a fair trial, and they will want the Bee Journal regularly if they are at all interested in bee-keeping.

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Perfectly adapted to Modern Bee Culture.
Illustrated Circular Free.
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19A8 Please mention the Bee Journal.

GARDEN CITY, Kan., May 13, 1895.
P. J. THOMAS, Fredonia, Kan.—
Honor to whom honor is due. The Queen you sent me proved the best out of six I bought from different Breeders.
J. HUFFMAN.

Big Yellow Golden Italian Queens 75c

Three for \$2.00. Three-banded, same price. 1-Frame Nucleus, with Untested Queen, \$1.75 2-frame, \$2.25. Satisfaction guaranteed.

P. J. THOMAS, Fredonia, Kan.
Mention the American Bee Journal. 22A5

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READERS Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.

General Items.

Hives Loaded with Honey.

Bees are doing wonders here. They are done swarming, and their hives are loaded with rich honey. A. J. BIRD.
Dos Palos, Calif., May 25.

Linden Killed by the Frost.

Linden will not yield honey this season here. The frost has killed the buds. Our only hope for honey of fine quality now lies in clover. T. F. BINGHAM.
Abronia, Mich., May 27.

A Successful Year Promised.

I have 152 colonies of bees, all doing finely. I extract about 40 pounds per colony weekly. White sage and wild alfalfa are in abundance. This promises to be quite a successful year for the honey output. CATHERINE M. GRAY.
Los Angeles, Calif., May 25.

Poor Prospect for Honey.

We received no honey in this neighborhood last year. It was too dry, and the flowers secreted no nectar. My 68 colonies, in the spring, were reduced till autumn to 53. At this time I have 49 colonies in fair condition. The prospect for honey this year is bad. The white clover—our honey-plant—is gone, or is in very weak condition. WM. ADIX.
Buck Creek, Iowa, May 29.

The Mission of the Bees.

In reading the beautiful poem, entitled, "The Hum of the Bees in Spring," by P. D. Wallace, on page 341, I thought justice to the bee required something like this, that I added, and he is welcome to use it if he wishes:

But the true mission of bees
Is to visit the trees,
And distribute the pollen of flowers,
That the fruits may mature,
And the gardener be sure
Of returns from his trees and his bowers.
J. A. PEARCE,
President Grand River Valley Hort. Society,
Grand Rapids, Mich.

Report on Wintering, Etc.

I had 13 colonies of bees last fall, two of them being the 5-banded Italians. I wintered all 13. I have 20 good colonies. I have bought 4 Italian queens and introduced them all right. It was my first trial. My average crop last year from black bees was 50 pounds to the colony.

I wintered all my bees on the summer stands, the hives wrapped with cotton batten. The colonies are strong. To-day I transferred 11 colonies from box-hives to the 8-frame dovetail hives without loss.

C. R. RHYNE.
Harden Station, N. C., May 23.

Bees and Strawberries.

I am a bee-keeper in a small way, and also engaged in fruit-growing. I value the bees as assistants. But as I am a little puzzled over Mr. Abbott's position relating to bees and strawberries, and as he and Mr. Secor both adopt the motto—"I want the facts rather than the theories," I will briefly give my experience relative to this question.

I have lived in the edge of the Michigan fruit-belt for many years, and know something of the practice of strawberry growers. On page 283, Mr. Abbott says: "The rows of vines producing stamens only, bears no fruit, of course, and are of no value only as fertilizers." And then he seems to con-

SPECIAL OFFER.

For July and August only. To those who have never tried our strain of Honey-Gathering Italians, we will make this Special Offer for July and August only, to introduce our Bees in your locality: We will send one Warranted Queen in July and Aug. for the trifling sum of 50 cts. Remember, the Queens we are going to send out for 50 cts. are warranted to be purely-mated, and if not, send us a statement of the fact and we will send another free of charge. Only one Queen will be sent at the above price to one address. If you want any more you must pay full price as per Table of Queens in our Circular, which we mail with each Queen. Address all orders to—

Leininger Bros., Fort Jennings, Ohio.

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McCALLUM STEEL WHEEL WAGONS

Highest Awards
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Broad narrow
tires, high or
low wheels to
fit any skien.



Are climate-
proof, weigh
less, run lighter
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Warranted
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Get catalogue of
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One Selected Tested for breeding, \$3.00.
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PATENT WIRED COMB FOUNDATION

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Thin Flat-Bottom Foundation

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Being the cleanest is usually worked
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Sole Manufacturers,
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IMPORTED Italian Queens reared this yr.,
\$3.50 each. Tested Queens—
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WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

vey the idea that such non-productive vari-
eties are used every second or third row,
or more, to fertilize the pistillates. Now
there may be such, but I never saw or
heard of a variety producing blossoms
wholly staminate. I never heard of any one
using a non-bearing variety as fertilizers,
but some such as the Wilson, Michael's
Early, etc., which are themselves heavy
bearers. Now if Mr. Abbott knows of such
wholly staminate, non-bearing varieties,
will he please name them, that we may
steer clear of them?

I take no side in this discussion, only give
my experience, and that is, that my bees
have very little use for my strawberries or
my neighbor's.

Sodus, Mich., May 19.

J. E. KING.

A Common Beetle.

I send a species of the bug generation
that seems to bother my bees very much.
So far as I have noticed, it only stays at the
entrance of the hive. Two or three have
been found on the frames at the bottom. It
made its appearance in the last five days.
What is it, and what is its office? Will it
do any special harm? T. L. PARSONS.

Tampico, Tenn., May 30.

Prof. Cook says this about it:

The insect is *Eurygaster indicus*. It is a com-
mon beetle all through the East. The grub
lives in the earth, and the beetle is noto-
rious for eating into ripe fruit, apples,
pears and peaches. I have never heard be-
fore that it harms bees. I think it must
have been after the honey. I do not think
it can do any serious mischief.—A. J. COOK.

Expects a Good Crop of Sweetness.

From present indications my bees at
Evansville, Ind., are going to give me an
extraordinary crop of sweetness. My man-
ager there reports them all in fine condi-
tion. I would locate an apiary here, but
there is an ordinance forbidding the keep-
ing of bees within the city limits, passed
by the city council some years ago, and the
local fraternity of bee-keepers never had
backbone in them enough to fight the ordi-
nance. I seriously contemplate joining the
National Bee-Keepers' Union, and get it to
help repeal the ordinance passed by bull-
necked whiskey bloats. Sam Jones has
been hitting them pretty hard, and suc-
ceeded last Sunday eve in raising \$25,000
for a Young Men's Christian Association
building. J. C. WALLENMEYER.

Owensboro, Ky., May 27.

Bees Doing Finely.

I have 4 colonies of the 3-banded Italians
and 4 of hybrid. I put 10 colonies in for
winter last fall, but lost two—one died and
the other lost its queen. I united the bees
with a weak colony. The one that died
was in a hive with frames 9x17. I do
not know whether they froze or starved;
they had plenty of sealed honey left. The
balance of my hives have frames 12x12,
outside measure. I do not blame the shal-
low frame for the ones that died. I prefer
the deep frame. The balance of my bees
came through all right, and are doing
finely. Our first honey-plant here is soft
and hard maple, dandelion, spice, red-bud,
black and red haw, then comes the locust,
which lasts about two weeks, and raspberry,
blackberry, which are all good for bees.
Then we have white and red clover, linden
and other blossoms. S. L. DELANY.

St. Leo, W. Va., May 27.

Deserted the Hives, Etc.

I haven't many bees at present. Two of
my colonies deserted their hives this
spring, for some cause or other, though I
couldn't say why they did so. They had
plenty of honey in the hives. I looked into
the hives in the morning, and I found about
a pint of bees clustered about the queen,
and at night they had all disappeared,

Globe Bee Veil
By Mail for One Dollar.

Five cross-bars are riveted in the
centre at the top. These bend down
and button to studs on a neck-band.
The bars are best light spring steel.
The neck-band is hard spring brass.
The netting is white with face-piece
of black to see through.
It is easily put together and folds
compactly in a case, 1x6x7 inches,
the whole weighing but 5 ounces.
It can be worn over an ordinary hat; fits any head;
does not obstruct the vision, and can be worn in bed
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flies bother, mosquitos bite, or bees sting.

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Honey & Beeswax Market Quotations.

CHICAGO, ILL., June 7.—We have our usual dull season which we look forward to and expect. Honey is entirely forgotten during the months of June, July and August. The market is pretty well cleaned up of all grades of honey, so the prospects are encouraging for the coming season. We are getting 13@14c. for light comb. J. A. L.

KANSAS CITY, Mo., June 3.—We quote: No. 1 white comb honey, 1-lbs., 13@14c.; No. 2, 11@12c.; No. 1 amber, 10c.; No. 2, 8c. Extracted, white, 7c.; amber, 6c.; dark, 5c. Beeswax, 22c. C. C. C. & Co.

CHICAGO, ILL., May 23.—The trade in comb honey is very light at this time of the year—as it is between seasons. Soon we will get the new crop, and it will come on a bare market. Just now what little comb sells brings 14c. for the best grades. Extracted, 5½@7c. All good grades of beeswax, 30c. R. A. B. & Co.

CINCINNATI, O., June 8.—Demand is slow for comb honey at 12@16c. for best white. There is a fair demand for extracted honey at 4@7c.

Beeswax is in good demand at 25@31c. for good to choice yellow. C. F. M. & S.

PHILADELPHIA, PA., May 18.—Comb honey is in poor demand. Large stores are now waiting for the new crop. Extracted is in fair demand. Beeswax has declined some, but good sales keep market from being overstocked. We quote: Comb honey, 9c. Extracted, 4½@6c. Beeswax, 29@30c. W. A. S.

NEW YORK, N. Y., May 24.—White comb honey is well cleaned up. Considerable buckwheat remains on the market, and, as the season is about over, some of it will have to be carried over. Extracted is doing fairly well, with plenty of supply to meet the demand. New southern is arriving quite freely. We quote: Extracted, white, 6@6½c.; amber, 5@5½c. Southern, common, 45@50c. per gallon; choice, 60@65c. While beeswax holds firm at 31@32c., we think it has reached top market and do not expect it to go higher. H. B. & S.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 43 South Water St.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
120 & 122 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.
I. J. STRINGHAM, 105 Park Place.

Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON.

Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

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Feeding Bees in the Spring.

Query 975.—Is it profitable to feed in the
spring when bees have enough to keep them
alive till the main honey-flow?—Ohio.

W. R. Graham—I think not.

G. M. Doolittle—I think not.

J. M. Hambaugh—I think not.

Eugene Secor—I do not practice it.

P. H. Elwood—Not in this locality
(New York).

Chas. Dadant & Son—Yes, if you want
strong colonies.

Wm. M. Barnum—No. When the
above condition is present—abstain.

W. G. Larrabee—If they have enough
without being obliged to be saving, no.

Jas. A. Stone—I have never done it,
for the reason that I did not think it
paid.

B. Taylor—If they have enough for
brood-rearing it is doubtful if it pays to
feed.

Prof. A. J. Cook—Not in commercial
bee-keeping, if the bees have a generous
supply.

E. France—If to keep them just alive,
yes, feed. If they have a great plenty,
then no.

H. D. Cutting—If they have plenty of
honey, it will not pay if you have many
colonies.

C. H. Dibbern—If there is a certainty
of a good flow later on, I think it pays
to feed moderately.

E. T. Abbott—No; generally speak-
ing, the more you fuss with bees in the
spring the less bees you will have.

Mrs. J. N. Heater—Not if they have
enough to rear young bees with, in ad-
dition to keeping the old bees alive.

Dr. J. P. H. Brown—I want my bees
to have a little more stores than suffi-
cient "to keep them alive until the main
honey-flow."

R. L. Taylor—Enough to keep them
alive is not sufficiency. Give them an
abundance, but it is just as well to give
it all at once.

Dr. C. C. Miller—I don't know. If they
have just enough it may pay, and pos-
sibly it may pay at any time when bees
would otherwise be "black idle."

Allen Pringle—They ought to have
more than enough merely "to keep them
alive till the main honey-flow." They
want quite a bit just for encouragement.
If they have not got that, give it them.

J. E. Pond—Most certainly not. It
might be well in some cases to scratch
the capped cells and set the honey run-
ning, but feeding with ample stores in
the hive is like "carrying coal to New
Castle."

Mrs. L. Harrison—It is better to feed
in the fall. When there is a dearth of
honey, following fruit-bloom, it pays to
feed in the interim between it and white
clover. Honey given to bees to-day
(April 24) is not noticed by them; they
prefer to go to the fields.

G. W. Demaree—Your question is too
indefinite to warrant a definite answer.

Stores to "keep bees alive" is not suf-
ficient to keep them rearing brood as
they ought to, to make them profitable.
There is no need to feed, if bees have
plenty of stores to use freely till the
flowers begin to yield.

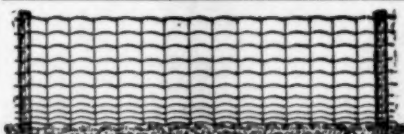
Rev. M. Mahin—Bees should have
enough not only to keep them alive, but
to make them feel that there is no fam-
ine impending. I do not believe in feed-
ing early in the spring before there is
anything to be gathered. During a
honey-dearth it will pay to feed.

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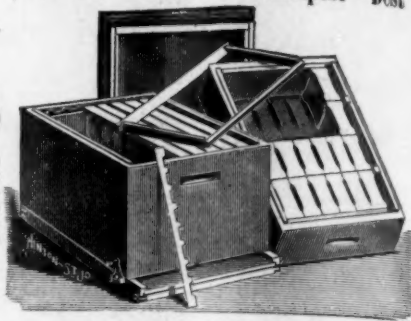
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Tested Queens by Return Mail at \$1.00.

I am devoting my apiary largely to Queen-Rearing, and making a specialty of Tested Italian Queens at \$1.00 each, or six for \$5.00. These Queens are of this year's rearing, and have been kept just long enough to know that they are good layers and purely mated. For several weeks I have been filling orders by return mail, and I am keeping a large number of Queens in nuclei for the express purpose of enabling me to fill orders promptly. More than six Queens (tested) will be sold at 75 cts. each, but such orders must be sent with the understanding that while they will be filled as promptly as possible, it MAY NOT be by return mail, which will be the case with six or a less number of Queens. The REVIEW and one Queen, \$1.50.

W. Z. HUTCHINSON, Flint, Mich.

Seventeen Years Ago ***** Dadant's Foundation *****

Was first offered for sale. The following parties keep it in stock and have kept it for years for sale. Why? Because they want to handle only the best goods, and they say they get the best goods when they buy Dadant's Foundation.

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James Reynolds Elevator Co., Poughkeepsie, N. Y.
Page & Lyon, New London, Wis.
La. Bee-Keepers' Supply Co., Donaldsonville, La.
E. F. Quigley, Unionville, Mo.

G. K. Hubbard, Fort Wayne, Ind.
L. Hansen, Davenport, Iowa.
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E. C. Eaglesfield, Berlin, Wis.
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Is not such a steady trade a proof of real merit in the goods we sell? We also make a specialty of **Veils and Veil Stuffs** of best quality.

Beeswax Wanted at All Times.

Bee-keepers' Supplies, Smokers, Sections, Tin Pails, etc. **Samples of Foundation and Tulle FREE** with circular. Instructions to beginners with circular. Send us your address.

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Mention the American Bee Journal. **HAMILTON, Hancock Co., ILL.**

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We beg to announce that we have completed arrangements with the Porters whereby we secure for this country the control of the sale of that very excellent and almost indispensable implement—

THE PORTER BEE-ESCAPE.

It will be manufactured by the Porters, as formerly, but write to us for prices in both large and small quantities.

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